



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.) Devin M Steenwyk	Science Fair Use Only <h1 style="margin: 0;">J1327</h1>
Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) Dopey Daphnia: How Drugs Affect the Heart Rate of a Daphnia	Division <input checked="" type="checkbox"/> Junior (6-8) <input type="checkbox"/> Senior (9-12)
Preferred Category (See page 5 for descriptions.) 13 - Pharmacology / Toxicology	
Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.) Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.	
<p>Objective: My project was to see how a daphnia's heart rate is affected by solutions of tobacco, cola, cough syrup, and ethyl alcohol. I believe that the heart rate would beat faster when I introduced the cola and tobacco, and the heart rate would beat slower when the cough syrup and ethyl alcohol was introduced.</p> <p>Materials and Methods: I used 4 different solutions of cola, tobacco tea, cough syrup containing dextromethorphen hydromide, and ethyl alcohol, each diluted with 50% aged tap water. I put a single daphnia on the slide and counted its heart rate for 3 consecutive times to determine it's normal heart rate. I then put a 50% solution on the slide with the daphnia, waited one minute and counted it's heart rate. I did this count 3 times for the daphnia in the solution. I repeated the experiment twice for each solution with a new daphnia on a clean slide each time.</p> <p>Results: The daphnia's heart rate in the stimulant solutions always increased. The daphnia in the depressant solutions heart rate decreased.</p> <p>Conclusion: My results supported my hypothesis. I believe that my results show that by using every day products, stimulants and depressants can change heart rate.</p>	
Summary Statement (In one sentence, state what your project is about.) My project is about how drugs affect the heart rate of a Daphnia.	
Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4. My Mother helped type my report. Dr. Mils Matheson was my mentor. Ms Jackie Pelatere advised me.	